

### REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars:

1. Amendments and Support for Same

By the Response, claims 1, 10, and 20 have been amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter has been added. Accordingly, claims 1-20 are pending and are respectfully submitted for consideration. Approval and entry of the amendments are respectfully requested.

2. Rejections under 35 U.S.C. §103(a)

With respect to the rejection of claims 1-7, 9-15, 17-22, and 24-25 under 35 USC §103(a) as being unpatentable over Agazzi (US 6,201,796) in view of Yousef (US 7,027,504), and with respect to the rejection of claim 8, 16, and 23 under USC §103(a) as being unpatentable over Agazzi and Yousef in view of Dubrovin (US 6,977,977), Applicant respectfully traverses the rejections at least for the reason that Agazzi, Yousef, and Dubrovin, combined or separately, fail to teach, disclose, or suggest all of the features recited in amended independent claims 1, 10, and 20, as well as their respective dependent claims.

Independent claims 1, 10 and 20 have been amended to add limitations of channel estimation so as to more clearly set forth the present invention. Particularly, claim 1 has been amended to further recite detail steps of channel estimation executed by the slave transceiver and detail steps of channel estimation executed by the master transceiver. Claims 10 and 20 have been amended to further recite detail steps of channel estimation.

It is respectfully noted that support for the amended limitations are found in the co-pending application serial no. 10/674,352, filed Oct. 1, 2003 (now issued as US 7,203,256), which was incorporated by reference, as shown in line 19, page 8 of the specification. A number of amended features are also discussed in line 19, page 8 to line 1, page 10 of the present specification.

Applicant respectfully asserts that none of the cited references teach, disclose, or suggest the amended limitations in combination with other features recited in the claims. Particularly, Agazzi, Yousef, and Dubrovin, combined or separately, fail to teach, disclose, or suggest the features wherein the channel estimation executed by the slave transceiver comprises: generating a first frequency response corresponding to a first frequency and a second frequency response corresponding to a second frequency according to the first idle sequence by the master transceiver, and estimating the channel characteristics according to the first frequency response and the second frequency response, wherein the first idle sequence is transmitted at a symbol rate, the first frequency and the second frequency are respectively  $1/M$  and  $1/N$  times of the symbol rate, and  $M$  is  $2^P$  times of  $N$ ,  $P$  being a natural number, and wherein the channel estimation executed by the master transceiver comprises: generating a third frequency response corresponding to the first frequency and a fourth frequency response corresponding to the second frequency according to the second idle sequence by the slave transceiver, and estimating the channel characteristics according to the third frequency response and the fourth frequency response, wherein the second idle sequence is transmitted at the symbol rate, as recited in amended claim 1.

Further, Applicant further asserts that Agazzi, Yousef, and Dubrovin, combined or separately, fail to teach, disclose, or suggest the features wherein the channel estimation comprises: generating a first frequency response corresponding to a first frequency and a second frequency response corresponding to a second frequency according to the idle sequence by the first transceiver, and estimating the channel characteristics according to the first frequency response and the second frequency response, wherein the idle sequence is transmitted at a symbol rate, the first frequency and the second frequency are respectively  $1/M$  and  $1/N$  times of the symbol rate, and  $M$  is  $2^P$  times of  $N$ ,  $P$  being a natural number, as recited in amended claim 10.

Still further, Applicant asserts that Agazzi, Yousef, and Dubrovin, combined or separately, fail teach, disclose, or suggest the features wherein the channel estimation comprises: generating a third frequency response corresponding to a first frequency and a fourth frequency response corresponding to a second frequency

according to an idle sequence transmitted by the transceiver, and estimating the channel characteristics according to the third frequency response and the fourth frequency response, wherein the idle sequence is transmitted at a symbol rate, the first frequency and the second frequency are respectively  $1/M$  and  $1/N$  times of the symbol rate, and  $M$  is  $2^P$  times of  $N$ ,  $P$  being a natural number, as recited in amended claim 20. Therefore, it is respectfully submitted that amended claims 1, 10 and 20, as well as their respective dependent claims are distinguishable over Agazzi, Yousef, and Dubrovin.

The requirements for establishing a *prima facie* case of obviousness, as detailed in MPEP § 2143 - 2143.03 (pages 2100-122 - 2100-136), are: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference to combine the teachings; second, there must be a reasonable expectation of success; and, finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. As Agazzi, Yousef, and Dubrovin, combined or separately, fail to teach, disclose, or suggest at least the amended features of claims 1, 10, and 20, the reliance on the cited prior art references is improper.

In view of the amendment and arguments set forth above, Applicant respectfully requests reconsideration and withdrawal of the §103(a) rejections of claims 1-25.

### 3. Conclusion

In view of the amendments to the claims, and in further view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is requested that claims 1-25 be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicant's attorney, the Examiner is invited to contact the undersigned at the numbers shown.

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Respectfully submitted,

A handwritten signature in black ink, appearing to read "Justin J. Cassell", written in a cursive style.

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